

FOR IMMEDIATE RELEASE
Contact: Amy McGrath, Communications Director
DfR Solutions
amcgrath@dfrsolutions.com
267-337-2495

## **Powerful Predictions and IP Protection Across the Supply Chain**

In Sherlock v. 6.1

Beltsville, MD – January 23, 2019 – DfR Solutions, pioneer in Reliability Physics Analysis and a leader in quality, reliability, and durability solutions for the electronics industry, today announced the newest release of Sherlock Automated Design Analysis™ software, version 6.1. This new version has two significant new features, Locked IP Models and Thermal Mechanical BGA Life Predictions. Combined, these new features give users even more powerful predictive capabilities along with the ability to protect critical competitive design advantages across the supply chain. These new features are particularly valuable in automotive, avionics, and other industries using cutting edge technology in challenging environments.

### **Locked IP Model**

The Locked IP Model in Sherlock satisfies the different needs of suppliers and OEMs across the product development supply chain. Now designs can travel between suppliers and OEMs and preserve sensitive design details without disclosing the intended use, environmental conditions, or reliability requirements. With this new feature, organizations can work together to solve complex reliability problems without exposing competitive intellectual property.

# **Thermal Mechanical BGA Predictability**

This enhanced analysis surpasses existing FEA strain value data by empowering users to predict the reliable lifetime of Ball Grid Arrays (BGAs) based on actual conditions. Now users can model how system level effects, such as mirroring and the application of underfill materials, impact the life of these vital components. Thermal Mechanical Analysis applied in the early stages of electronics design gives engineers the power to pick the best components for their electronic packages before physical testing, saving costly and time-consuming re-designs.

"Protecting intellectual property has always been crucial in the world of new product development, especially in the highly competitive electronics market," said Dr. Craig Hillman, CEO of DfR Solutions. "The Locked IP Model in Sherlock allows users to communicate the design efficacy between internal teams and external organizations, OEMs, systems integrators and suppliers alike, protecting sensitive competitive design information," stated Hillman. "And now, instead of only strain value data from an FEA analysis, Sherlock can actually make lifetime predictions on BGAs based on actual conditions. This is extremely powerful information in the hands of the automotive and avionics industries in particular," said Hillman.

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### Additional Sherlock enhancements include:

- Meshed parts may now be used with sub-assemblies in Sherlock to create and analyze
  multi-card chassis models. In such models, a custom meshed mechanical part can be
  defined in any 3D design tool, such as SOLIDWORKS, to represent the chassis to be
  analyzed. The chassis mesh model can then be imported into Sherlock and bonded to as
  many boards as needed.
- The ICT analysis module has been updated to provide life predictions based on user provided strain rate. The ICT results now include a fatigue-based score in addition to the already existing overstress score.
- Sherlock's library now contains more than 80,000 combinations of laminated glass styles.

### **About DfR Solutions:**

DfR Solutions is world-renowned for its expertise in applying Reliability Physics Analysis to electronics technologies and is a leading provider of quality, reliability, and durability research and consulting to the electronics industry. The company pioneered the use of Reliability Physics with its innovative Sherlock Automated Design Analysis™ software providing crucial insights and solutions early in product design and throughout the product life cycle. DfR Solutions empowers its customers to accelerate and maximize product development while saving time, managing resources, and improving customer satisfaction. The company supports Fortune 500 clients in every industry including aerospace/avionics, automotive, consumer, industrial, medical, military, solar and telecommunications. For more information about DfR Solutions, visit www.dfrsolutions.com.

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